PROVISIONAL METHOD 4 CALCULATOR INSTRUCTIONS

The Department of Water Resources (DWR) has developed these instructions to guide agencies in calculating their potential water savings. The calculator estimates savings that would likely result from retrofit of inefficient indoor residential fixtures, such as toilets, washers, and showers, from increased efficiency in the CII sector, and from conversion of unmetered connections to metered connections.

The calculator uses natural turnover and historical retrofit data to estimate the saturation level of efficient indoor residential fixtures at the midpoint of a supplier's baseline. The calculator then estimates how much water would be saved if the efficient fixture saturation rate was increased to certain specified saturation goals (for example, the calculator assumes that 85% of all residential toilets will be of the high-efficiency variety by 2020). Suppliers that have high percentages of efficient fixtures will have to install fewer efficient fixtures to reach the saturation goal and will have smaller savings requirement.

Metering savings are based on California Urban Conservation Council's (CUWCC) estimate of savings in its Memorandum of Understanding (MOU). The metering savings is estimated to be 20% of deliveries to unmetered connections can be saved through metering.

CII savings are set to 10% of baseline CII, a standard that comes from Target Method 2, specified in SBx7-7.

Agencies can find information required to populate the calculator's data input fields from their BMP and DMM reports, their UWMP, PWSS records, the California Department of Finance (DOF), and the Bureau of the Census.

10-15 Year Baseline Water Use Information

Baseline Period: Enter base period for 10 to 15-year continuous period; used to calculate baseline per capita water use.

Baseline Water Use (GPCD): Enter average gross water use, expressed in GPCD for a continuous, multiyear base period. This estimate should be prepared in accordance with Methodology 3 in the *Methodologies for calculating Baseline and Compliance Urban Per Capita Water Use* document.

Population in Midpoint Year: Enter total service area population. This estimate should be prepared in accordance with Methodology 2 in the document cited above.

5 Year Baseline Water Use Information

Baseline Period: Enter base period for 5-year continuous period; used to determine whether the 2020 per capita water use target meets the legislation's minimum water use reduction requirement.

Baseline Water Use (GPCD): Enter average gross water use, expressed in GPCD for a continuous, multiyear base period. This estimate should be prepared in accordance with Methodology 3 in the *Methodologies for calculating Baseline and Compliance Urban Per Capita Water Use* document.

Unmetered Connections

Unmetered Connections: Enter number of unmetered connections at midpoint of the baseline period. These data should be consistent with what has been previously reported to either the CUWCC or the Department of Water Resources (DWR).

Water Use by Unmetered Connections (AF): Enter water deliveries to unmetered connections, excluding recycled water. These data should be consistent with what has been previously reported to either the CUWCC or DWR.

Baseline CII Water Use

Baseline CII Use (AF): Enter the baseline use of metered and unmetered Commercial, Industrial, and Institutional Accounts. This estimate should be prepared in accordance with Methodology 7 in the Technical Methodologies guidance document cited earlier.

Optional Data Needed to Calculate Targets Using Indoor Residential Savings Calculator

Persons and Plumbing Fixtures per Household: Enter number of persons per single and multi-family household. Enter toilets per single and multi-family household. Enter showers per single and multi-family household. These data should be consistent with what has been reported to the CUWCC, or estimates can be drawn from the data table published by the American Housing Survey.

Residential Housing Units and Group Quarters: Enter number of single and multi-family dwelling units, and group quarters in the service area during the baseline midpoint year. If the supplier's service area coincides with boundaries of one or more incorporated cities, dwelling unit and group quarters data may be obtained from DOF's website. Otherwise, suppliers are recommended to generate these estimates using Census Block level information aggregated up to the supplier's distribution area. The broad outline of how to use Census Block level information to obtain single-family and multi-family population is described in Appendix A of the Technical Methodologies document cited earlier. The same methodology can be expanded to obtain information about dwelling units and group quarters.

Toilet Saturation in 2005

Choose the option to either enter own saturation estimates, or have the calculator estimate saturation rates.

Option 1: Enter own saturation rates, total must equal 100%

Option 2: Enter number of single and multi-family ultra low flow toilets (1.6 gal/flush or less), and HET Rebates/Installations by year sponsored by the supplier. These data should be consistent with what has been reported to CUWCC or DWR.

Showerhead Saturation in 2005

Choose the option to either enter own saturation estimates, or have the calculator estimate saturation rates.

Option 1: Enter own saturation rates, total must equal 100%

Option 2: Enter the number of showerheads distributed per year. These data should be consistent with what has been reported to the CUWCC or DWR.

Clothes Washer Average Water Factor (WF) in 2005

Choose the option to either enter own saturation estimates, or have the calculator estimate saturation rates.

Option 1: Enter own saturation rates, total must equal 100%

Option 2: Enter number of washers retrofitted by water factor type and year through supplier's financial incentives (do not use points assigned by CUWCC to different types of washers instead of number of washers retrofitted). These data should be consistent with what has been reported to CUWCC or DWR.